

REMARKS

Claims 1-7 are pending in the application. Claims 1-7 stand rejected.

Claim 3 has been cancelled herein.

Claims 1, 2, 4, 6 and 7 have been amended to clarify applicant's claimed invention.

Claim 1 also includes the features of claim 3.

Claim 1 includes:

a despreader for generating first and second despread signals by despreding a receive signal by the despreding code sequence on the receiving side at a first timing, that leads by a predetermined phase, timing of the spreading code sequence on the transmitting side and a second timing that lags, by the predetermined phase, the timing of said spreading code sequence;

an interference-component estimation unit for estimating first and second interference components at said first and second timings inflicted by another path upon a prescribed path of interest among multiple paths;

an interference-component elimination unit for eliminating the first and second interference components respectively from said first and second despread signals; and

a phase control signal generator for generating a signal for controlling the phase of the despreding code sequence on the receiving side based upon the first and second despread signals from which the first and second interference components have been eliminated respectively.

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yellin (U.S. 6,628,701) in view of Wang et al. (U.S. 6,266,365).

The Office Action points to Yellin to disclose the interference-component estimation unit and a synchronization tracking circuit for synchronizing the phase of a spreading code sequence on the transmitting side.

Yellin, Fig. 3B, appears to teach a pilot interference removing rake receiver in which a subtractor 64 of j th-finger subtracts the interference effect $B_j(n)$ caused by other fingers from the output of the j th-finger which is the output of the multiplier 56 and then a summer 62 sums the outputs of each finger and produces the data signal $X(n)$. The interference effect $B_j(n)$ caused by other fingers is given by the equations 3 and 4.

However, Yellin does not disclose a DLL circuit for performing synchronization tracking by DLL. The reference shows the DLL control based upon a signal obtained by eliminating the interference-component, which is inflicted from the other path, since neither reference describes the interference-component estimation unit.

By reference to Figs. 2-4B, Wang discloses a DLL circuit that outputs an error signal based upon a DLL curve for each finger and executes a phase-control of the spreading code using the error signal.

In contrast to applicant's claimed invention, the combination of Yellin and Wang fail to show or suggest the structure of the claimed invention comprising:

a despread code sequence generator for generating a despread code sequence on the receiving side;

a desreader for generating first and second despread signals by desreading a receive signal by the desreading code sequence on the receiving side at a first timing that leads, by a predetermined phase, timing of the spreading code sequence on the transmitting side and a second timing that lags, by the predetermined phase, the timing of said spreading code sequence;

an interference-component estimation unit for estimating first and second interference components at said first and second timings inflicted by another paths upon a prescribed path of interest among multiple paths;

an interference-component elimination unit for eliminating the first and second interference components respectively from said first and second despread signals; and


a phase control signal generator for generating a signal for controlling the phase of the despreading code sequence on the receiving side based upon the first and second interference components have been eliminated respectively.

For at least the foregoing reasons it is respectfully requested the rejection of claims 1-2, 4-7 should be withdrawn.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if the Examiner should consider this application not in condition for allowance, the Examiner is invited to telephone the undersigned attorney at the number below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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